

## **SAIC “Straw” Proposal for Draft Habitat Restoration Recommendations**

### **Approach Summary for SAIC Proposed Draft Habitat Restoration Recommendations**

- Assume that tidal marsh will be restored in all Restoration Opportunity Areas (ROAs) to provide habitat improvements for all covered species within each of the Delta watersheds.
- Establish overall BDCP habitat restoration recommendations by habitat type.
- Establish minimum habitat restoration recommendations for each habitat type within the ROAs. The extent of remaining habitat that would be restored to achieve the overall habitat restoration recommendations could be restored within any of the ROAs.
- Floodplain inundation habitat that could be restored jointly with flood control projects are assumed to be discretionary on the part of the BDCP Implementing Entity and would be funded through state and federal sources (e.g., setting back levees along the San Joaquin River from Vernalis to Mossdale). Implementation of these discretionary restorations would not be included as conditions of BDCP permits.
- SAIC proposed draft habitat restoration recommendations presented in Table 1 are subject to change based on results of further analyses (i.e., DRERIP evaluation of conservation measures, results of the BDCP impact assessment).

**Table 1. SAIC “Straw” Habitat Restoration and Enhancement Recommendations**

ROA	ROA Habitat Restoration/Enhancement Recommendation <sup>1</sup>					Total ROA Restoration Recommendation (acres) <sup>2</sup>
	Restored Tidal Marsh (acres)	Inundated Floodplain		Restored Channel Margin (linear miles of channel bank [one side of channel])	Restored Riparian (acres)	
		Enhanced	Restored			
Yolo Bypass/Cache Slough	5,000 <sup>3</sup>	23,350 <sup>4</sup>		0	750 <sup>5</sup>	5,750
Sutter and Steamboat Sloughs	0	0		10 <sup>6</sup>	60 <sup>7</sup>	60
Cosumnes/Mokelumne	1,500 <sup>8</sup>	0		0	110 <sup>5</sup>	1,610
East Delta	1,400 <sup>9</sup>	0		0	210 <sup>5</sup>	1,610
South Delta	5,000 <sup>10</sup>	0	600 <sup>11</sup>	0	800 <sup>5</sup>	6,400
San Joaquin River	0	0		5 <sup>6</sup>	30 <sup>7</sup>	30
West Delta	2,050 <sup>12</sup>	0		0	30 <sup>13</sup>	2,080
Suisun Marsh	7,000 <sup>14</sup>	0		0	0	7,000
<b>ROA Total</b>	<b>21,950</b>	<b>23,350</b>	<b>600</b>	<b>15</b>	<b>1,990</b>	<b>24,540</b>
<b>Total SAIC Restoration/Enhancement Recommendation</b>	<b>55,000<sup>15</sup></b>	<b>29,000<sup>16</sup></b>	<b>600<sup>17</sup></b>	<b>55<sup>18</sup></b>	<b>5,000<sup>19</sup></b>	<b>60,600</b>

**Notes:**

<sup>1</sup> Represents the minimum extent of each habitat type that will be restored within the ROA.

<sup>2</sup> Does not include channel margin habitat restoration recommendations and floodplain enhancement recommendations.

<sup>3</sup> Based on results of hydrodynamic modeling indicating that this extent of restoration would improve fish passage and habitat conditions in Steamboat and Sutter Sloughs during the long-term implementation period.

<sup>4</sup> Based on the aerial extent of inundated floodplain when Fremont Weir is operated to provide 2,000 cfs flow into the Yolo Bypass. Fremont Weir is operated to increase duration and frequency of flows as described in *An Overview of the Draft Conservation Strategy for the Bay Delta Conservation Plan* (January 12, 2009).

<sup>5</sup> Riparian vegetation is assumed to establish on sea level rise accommodation lands (0-3 feet above the tidal zone elevation) that would be acquired for the minimum tidal marsh restoration recommendation indicated in the second column. The extent of sea level rise accommodation land is assumed to be proportional to the ratio of sea level rise accommodation to tidal marsh lands present within the ROA. To account for variances in soils and hydrology, it is assumed that only 40 percent of sea level rise accommodation lands will support riparian vegetation.

<sup>6</sup> Assumes habitat is restored along 20 percent of the channel length.

<sup>7</sup> Assumes riparian vegetation is established as a 50 foot wide band along channel banks restored to meet the channel margin habitat recommendation indicated in the fourth column.

<sup>8</sup> Based on the extent of habitat that could be restored on McCormack-Williamson Tract. The habitat, however, may be restored anywhere within the ROA.

<sup>9</sup> Based on the extent of habitat that could be restored on Canal Ranch Tract. The habitat, however, may be restored anywhere within the ROA.

<sup>10</sup> Based on the extent of habitat that could be restored on Fabian Tract. The habitat, however, may be restored anywhere within the ROA.

<sup>11</sup> Based on the extent of habitat that could be restored along 5 miles of Middle River if levees are set back 500 feet along each side of the channel. The habitat, however, may be restored elsewhere within the ROA (i.e., Old River).

<sup>12</sup> Based on the extent of habitat that could be restored on Sherman Island, Decker Island, and Dutch Slough. The habitat, however, may be restored anywhere within the ROA.

<sup>13</sup> Assumes 5 miles of BDCP levees would be constructed to restore the tidal marsh recommendation indicated in the second column and that levees would be designed to allow for the establishment of at least a 50 foot wide band of riparian vegetation along the lower slopes and toe of the levees.

<sup>14</sup> Based on the lower recommendation for tidal marsh restoration identified in the Suisun Marsh Habitat Restoration Plan.

<sup>15</sup> Target from August 2008 draft ERP Phase II Conservation Strategy. Includes targets for Planning Area and Suisun Marsh.

<sup>16</sup> Based on the aerial extent of inundated floodplain when Fremont Weir is operated to provide 4,000 cfs flow into the Yolo Bypass. Fremont Weir is operated to increase duration and frequency of flows as described in *An Overview of the Draft Conservation Strategy for the Bay Delta Conservation Plan* (January 12, 2009).

<sup>17</sup> Based on the December 5, 2008 Steering Committee meeting handout *Draft Initial SAIC Recommended BDCP Habitat Restoration and Enhancement Opportunities*, the estimated total maximum floodplain restoration opportunity is approximately 9,500 acres if all discretionary joint floodplain habitat restoration

and flood control conservation measures are implemented.

<sup>18</sup> Based on 60 percent of linear miles of channel (1 side) along Middle River, Steamboat and Sutter Sloughs, and San Joaquin River from Vernalis to Mossdale. The remaining 40% is assumed to support existing habitat that would not be available for restoration. Restoration recommendation, however, may be achieved within any ROA.

<sup>19</sup> Based on Delta Vision Environmental Work Group in-progress draft performance target of >5,000 acres dated April 16, 2008.